

Dept. of the Interior
Minerals Management Service
Attn: Rules Processing Team (RPT)
381 Elden Street, MS-4024
Herndon VA 20170-4817

February 28, 2006

Re: Comments on “Alternate Energy-Related Uses on the Outer Continental Shelf – 1010 – AD30”,

Dear Rules Processing Team:

Thank you for the opportunity to submit comments to MMS on this highly important and pressing issue. The enclosed comments are submitted jointly by the **Community Environmental Council**, a California-based non-profit organization, **Clipper Windpower**, a California-based wind power corporation, and **Aquantis, Inc.**, a California-based limited liability company (LLC), that is developing ocean current turbines.

We address the numerous questions presented in the Advance Notice of Proposed Rulemaking (“ANPR”) in our jointly filed comments with the Ocean Renewable Energy Coalition. In these separately filed comments, we address only the issues most important to us, for added emphasis and clarity.

All our recommendations flow from the wish that the MMS regulations promulgated in this proceeding ensure the expeditious deployment of renewable energy technologies in a fashion that does not negatively impact the marine environment.

Protection of the environment is the *raison d’etre* for the Community Environmental Council (“CEC”), and is a large motivating factor for the two private entities jointly submitting these comments with the CEC. With these rules, it is important to find the correct balance between promoting technologies that will have a tremendous, and established, beneficial impact on many global environmental problems through substituting renewable power for fossil fuels (such as climate change, air pollution, and despoliation of habitats through mining for energy resources) and ensuring protection of the marine environment. We believe strongly that an expedited review process can be crafted for issuing leases on the Outer Continental Shelf for renewable energy development without risking unnecessary damage to the marine environment.

Our recommendations follow.

Create a "one stop shop" for offshore renewable energy permitting

MMS is developing regulations for issuing leases, easements and rights of way (collectively “leases” in this document) on the Outer Continental Shelf, primarily for offshore renewables. We feel it would be tremendously beneficial for MMS to craft an arrangement with the Federal Energy Regulatory Commission and other pertinent federal agencies to work together as a “one stop shop” for renewable energy applicants. Under such a system, applicants would submit the necessary requests to MMS (or, alternatively, FERC) and would be required to work with only that one agency for all required federal leases and permits.

As an example of the difficulty of obtaining the required federal and state permits for offshore renewables development under the current system, consider the following list of required permits for AquaEnergy’s wave buoy project (four 250 kW buoys), slated for installation in the Olympic National Marine Sanctuary in Washington State:

Agency	Permit
Federal Energy and Regulatory Commission (FERC)	Hydropower license NEPA lead agency
Makah Indian Nation – Makah Tribal Council	Land Lease
Tribal Historical Preservation Office (THPO)	Section 106 Review
U.S. Bureau of Indian Affairs	NEPA Review
National Oceanic and Atmospheric Association (NOAA)/OCNMS	Olympic Coast National Marine Sanctuary (OCNMS) Permit
National Marine Fisheries Service	Threatened and Endangered Species Review
U.S. Army Corps of Engineers (USACE)	Section 10 or 404 – for buoys
U.S. Coast Guard	Aids to Navigation Permit
U.S. Fish and Wildlife Service	Threatened and Endangered Species Review

WA State Ecology Office	Section 401 Review
WA State Office of Archeological and Historical Perspective	Section 106 Review
WA State Department of Fish and Wildlife	No Hydraulic Project Approval required with FERC license.
WA State	SEPA Checklist
WA State Department of Natural Resources (WDNR)	Land Lease – for cable/shore connection and plant footprint

There is some precedent for cooperative agreement between federal permitting agencies. For example, a 1975 MOU between the Army Corps of Engineers and FERC was inked, providing for cooperation regarding Section 10 permits for hydroelectric projects. More recently, the same entities inked an MOU in 2005, concerning natural gas pipeline permitting.¹ A similar understanding, while bound to be labor-intensive in its development, would be warranted for issuing leases and permits for offshore renewable energy development.

Minimize fees involved and don't emulate MMS' current practice of charging for a series of permits re oil and gas development

If a one stop shop is developed, fees will quite likely be partially mitigated through greater efficiency in the permit process. However, we urge MMS to develop the current regulations to require significantly less fees than the analogous fees required for oil and gas leases. The offshore renewable energy industry is very much in its infancy in the United States and imposing overly large fees for leases and permits could be prohibitively expensive for many companies.

It is our hope that MMS, and any cooperating agencies, will do everything within their power to minimize permit fees and compliance costs.

¹ The MOU is available at http://www.sac.usace.army.mil/newinternet/org/regulatory/FERC-CORP_MOU_2005-07-11.pdf (last visited on Feb. 28, 2006).

Draft a Programmatic EIR for renewable energy development on the OCS (similar to that completed recently by BLM for wind power)

The Bureau of Land Management recently completed a Programmatic Environmental Impact Statement examining the impacts of developing wind power potential on BLM lands.² By performing a PEIS, the additional environmental review required for actual projects will be minimized significantly for BLM lands.

Similarly, a PEIS of the OCS would reduce the required additional review for OCS renewable energy projects. As part of the PEIS, we recommend that MMS assume (and encourage if possible) creation of “wave hubs” in appropriate areas, designed to reduce the cost and environmental impact of pilot and demonstration ocean power projects. This model has been pursued successfully thus far in the United Kingdom, off the coast of Cornwall, in southern England.³ By including examination of the environmental impacts of wave hubs in a PEIS, in appropriate areas, additional environmental review for actual projects may be reduced further.

Also, under the 2005 Energy Policy Act, the National Academy of Sciences must conduct an ocean energy assessment of the OCS. We urge MMS to work with the NAS in drafting the assessment, particularly as such work would relate to an OCS PEIS. By working with the NAS, the most likely areas for OCS renewable energy development will be identified, making the geographic focal points readily apparent for a future PEIS, in terms of renewable energy development generally, and also in terms of potential wave hub sites.

Similarly, Section 388(b) calls for the Department of the Interior (MMS’ parent entity) to complete a digital mapping process for the OCS.⁴ MMS should ensure it takes this information into account in completing a PEIS.

² Available at <http://windeis.anl.gov/> (last visited on Feb. 26, 2006).

³ More information is available at Renewable Energy Access: <http://www.renewableenergyaccess.com/rea/news/story?id=22626> (last visited on Feb. 28, 2006).

⁴ The relevant section states: “The Secretary of the Interior, in cooperation with the Secretary of Commerce, the Commandant of the Coast Guard, and the Secretary of Defense, shall establish H. R. 6 – 154 an interagency comprehensive digital mapping initiative for the outer Continental Shelf to assist in decisionmaking relating to the siting of activities under subsection (p) of section 8 of the Outer Continental Shelf Lands Act (43 U.S.C. 1337) (as added by subsection (a)).”

Create a streamlined level of review for offshore renewables

In addition to creating a “one stop shop” for offshore renewables, which in itself will provide for increased efficiency in obtaining leases and permits, we recommend that MMS fully consider the limited environmental threat posed by offshore renewable technologies. The general environmental benefits from renewable energy technologies are well established. Offshore wind power will offset harmful emissions from fossil fuel and nuclear sources of energy, while causing no emissions during operation. There are, of course, additional environmental effects resulting from the manufacture of wind turbines and other renewable energy technologies, but these pale in comparison to the equivalent impacts of coal, natural gas, and nuclear power generation technologies.

Additionally, offshore wind projects, once in place, will have impacts on the marine environment in terms of the footprint they will require on the ocean bed, possible impacts to bird life, visual impact, and the slight impacts from sea traffic required for its operations and maintenance. These are not negligible impacts. In particular, it will be important to assess thoroughly the impacts of turbines on marine birds and sea life, though we are confident that the recent history of wind turbine siting will lead to minimal impacts on bird and sea life if siting is prudent.

Similarly, wave buoys and ocean current turbines, the other leading renewable energy technologies for the marine environment, will likely have minimal environmental impacts – if sited properly.

Accordingly, we urge MMS to take into account, in drafting new regulations, the significant beneficial environmental impacts that will result from prudent development of utility-scale renewable energy technologies on the OCS. Impacts on the marine environment – as a subset of the global environment – are by no means negligible, but it is important to fully take into account the net benefit and the impacts of equivalent technologies, such as coal, natural gas, or nuclear electricity generators. Due to the large net benefit to the environment that will very likely result from prudent development of offshore renewable energy technologies, we urge MMS to create an expedited review process for granting leases and, if a “one stop shop” is created, to also create an expedited review process for permitting offshore renewables.

Create a two part permitting structure

It is essential that there be a two part permitting structure for offshore renewables: 1) Pilot projects; 2) Commercial projects. Currently, for ocean energy devices (such as wave buoys or ocean current turbines) essentially the same permitting requirements are imposed on pilot projects as are imposed on commercial hydroelectric projects. There are some exceptions, granted most recently with FERC's 2005 decision on Verdant Power's project in New York City's East River.⁵ However, this exception was granted primarily because Verdant agreed not to sell power into the grid during the eighteen month test period (during which window Verdant would gather data for a full permit application). Allowing sales of power into the grid during the testing of pilot projects would provide a very important financial incentive during testing of products, and would also raise the profile of ocean power technologies during their development – which would advance the stated goals of the 2005 Energy Policy Act to promote renewable energy development on the OCS.

Instead, a less burdensome permitting process, for leases, and permits, should be developed for pilot projects, allowing pre-commercial technologies to be installed for testing without the generally long waiting period (and expenses) of a full review – at the same time as they provide power to the grid.

A distinction should also be made between pilot projects that have no possibility of connecting to the grid for power production, and pilot projects that are connected to the grid for small-scale power production, to be ramped up pending test results from the pilot. A less rigorous review process should be developed for pilot projects that are not planned for grid connection.

In terms of the size of pilot projects, we also propose a distinction between offshore wind technologies and other offshore renewable technologies. This is the case because wind power is a much more mature technology than wave power or ocean current turbine technologies. Offshore wind turbines are currently as large as 5 MW for pilot projects (Repower, GmbH). Clipper Windpower, one of the signatories to these comments, plans to develop offshore wind turbines up to 7.5 MW. As pilots, such designs would benefit greatly from having three or four devices in one area, leading to a pilot project as large as 30 MW. By having three or four devices in the same area, the development process will proceed

⁵ 111 FERC 61,024 (2005).

much faster because different problems will likely arise with each turbine and be dealt with as they arise. The alternative is to have only one device, which will, over time, likely fail for different reasons and require re-engineering each time, in a linear fashion. Through parallel testing and correction, the development process can proceed that much faster. Accordingly, we request that offshore wind pilot projects – eligible for expedited review – be 30 MW or less.

For other offshore renewable technologies, we request a size limitation of 6 MW or less, under the same rationale as described above: wave power and ocean current turbine prototypes are, at the largest, 1.5 MW, to our knowledge.⁶ Most are much smaller.

The Ocean Renewable Energy Coalition (OREC), of which the Community Environmental Council is a member, is recommending, in separate comments, a three part permitting structure similar to the structure we recommend here. OREC's first and second categories correspond to the two types of pilot projects described above.

Require development of leases within a reasonable time to avoid flipping

Section 388 requires MMS to issue leases on a competitive basis, unless there is no competitive interest. We recommend that leases for most offshore renewable energy projects be developed – in some substantial fashion – within six months of the lease being awarded (with an exception described in the next section). We are concerned that without such a rule, entities may purchase leases with the intention of “flipping” them rapidly for a profit, potentially artificially driving up the price of leases. By requiring substantial development within six months, flipping purchases will probably be avoided.

⁶ The Aquantis C Plane ocean current turbine is slated for full-scale production at 1.5 MW capacity. Another prototype device, at 250 kW, is AquaEnergy's wave buoy, to be deployed in Washington State waters once permits are obtained. Other devices, already employed in commercial developments on a small scale, include the Pelamis, from Ocean Power Deliveries, a Scottish company, which may be as large as 750 kW, and a wave buoy from Ocean Power Technologies, a New Jersey company, planned as large as 500 kW over the next few years.

Offer leases up to thirty years for deepwater wind projects

Twenty year leases for offshore energy development are the longest generally available. However, with respect to deepwater⁷ wind development, we are concerned that twenty years will be insufficient time to develop the required technology and to recoup the investment in a given project. To clarify, deepwater wind power technologies are being developed that will allow wind turbines to be sited in waters of almost any depth.

Some technologies extend the traditional pile or tower turbine base deeper, allowing deployment in depths of as much as 40 meters.⁸ Other technologies, such as floating concrete piles, are being developed by Hydro, a Norwegian company.⁹ This technology would allow turbines to be deployed in waters up to 300 meters. The National Renewable Energy Laboratory, in their *Future for Offshore Wind in the United States* report (June, 2004), projects that similar technologies will allow deployment in depths up to 200 meters. However, commercial development of these technologies is still years in the future. Accordingly, for a company to take out a lease in deep waters on the OCS, it is unlikely that a project could be designed and constructed in time to allow recovery of costs through an industry standard twenty year power purchase agreement, if only a twenty year lease is granted. We therefore request that leases up to thirty years be granted for deepwater wind power projects.

We also request that there be no six month mandatory development rule applied to deepwater renewable energy projects, as discussed in the previous section. This is the case because, as just described, technologies are not yet available for deployment of offshore wind turbines in deep waters, making it impossible to develop such a site within six months.

⁷ “Deepwater” is not defined statutorily and there is, to our knowledge, no accepted definition of this term. We use the term in these comments to indicate water deeper than is feasible for offshore wind development now, or in the next few years –waters exceeding approximately 40 meters.

⁸ The Talisman/SSE offshore wind project planned for Scotland’s waters will place turbines in waters up to 40 meters.

⁹ The “Hywind” project is described at http://www.hydro.com/en/press_room/news/archive/2005_11/hywind_en.html (last visited on Feb. 27, 2006).

Create a standardized transmission permitting process

For any commercial offshore renewable energy project – and possibly for non-commercial projects also – transmission facilities will be required. Transmission facilities will require permitting by MMS and applicable state agencies with jurisdiction over non-OCS marine areas. Environmental issues raised with transmission development are likely to be much the same wherever the lines are placed, giving rise to the possibility of a standardized transmission lease/permitting process. We recommend that MMS use data, either on hand already from past environmental reviews, or from the PEIR process we propose, to craft a standardized procedure for permitting transmission lines.

Work with relevant state transmission permitting agencies to harmonize, as much as possible, with existing state transmission permitting requirements

Similarly, we strongly recommend that MMS work with relevant state permitting agencies to coordinate the permitting process for transmission lines. Section 388(a) states, in part: “The Secretary shall provide for coordination and consultation with the Governor of any State or the executive of any local government that may be affected by a lease, easement, or right-of-way under this subsection.” We urge MMS to interpret this provision broadly and work with state agencies to coordinate and streamline permitting procedures.

Additionally, it would be beneficial for MMS to encourage harmonization of permitting procedures in different states. Evidently, MMS has limited ability to induce changes in state permitting procedures, but MMS may certainly encourage state agencies to revisit their permitting procedures for offshore renewable energy transmission lines – given the renewed focus on renewable energy and energy independence throughout the United States in recent years.

We offer our support in coordinating any harmonization efforts between MMS and relevant California state agencies.

Ensure regulatory changes require minimal additional permits for existing project applicants

A number of offshore renewable energy projects have been proposed for the OCS, including Cape Wind, off Cape Cod, Massachusetts, and the Long Island Power Authority's proposed wind energy project. Section 388 of the Energy Policy Act "grandfathers" these projects into the new regulatory structure. We urge MMS to ensure that new regulations not in any way penalize other project applicants, submitting between now and the time the new rules are completed, by changing rules mid-stream. It is likely that the new regulations will take some time to compete – as long as a year is not unlikely – during which time we do not want to see a "chilling effect" imposed on offshore renewable energy companies in terms of applications for leases under existing rules.

Sincerely,

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